

Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (canceled).

Claim 2 (currently amended): The radio communications apparatus according to claim ~~[[1]]~~ 21, wherein said communication state detector has a reception power change detector which detects ~~[[a]]~~ the change in reception power ~~in of the received signal a local station.~~

Claim 3 (currently amended): The radio communications apparatus according to claim ~~[[1]]~~ 21, wherein said communication state detector has a transmitting station ~~distant station~~ transmission power change detector which detects ~~[[a]]~~ the change in transmission power ~~in-a~~ of the distant station.

Claim 4 (currently amended): The radio communications apparatus according to claim ~~[[1]]~~ 21, wherein said communication state detector has a control state detector which detects a ~~the~~ control state of the apparatus ~~local station.~~

Claim 5 (currently amended): The radio communications apparatus according to claim 21 ~~[[1]]~~, wherein said communication state detector has a local station transmission power change detector which detects a change in transmission power ~~in~~ of the apparatus ~~local station~~.

Claim 6 (currently amended): The radio communications apparatus according to claim ~~[[1]]~~ 21, wherein said communication state detector has a transmission power control bit change detector which detects a change in said transmission power control bit.

Claims 7-8 (canceled).

Claim 9 (original): The radio communications apparatus according to claim 2, wherein said reception power change detector has a reception power threshold comparator which compares the reception power with a predetermined threshold.

Claim 10 (canceled).

Claim 11 (currently amended): The transmission power control method for radio communications apparatus according to claim ~~10~~ 22, wherein said communication state detecting step has a reception power change detecting step which detects a change in reception power ~~in a local station~~,

wherein said transmission power control range changing step ~~calculates~~ changes the variable power step amount depending on the detected change in reception power.

Claim 12 (currently amended): The transmission power control method for radio communications apparatus according to claim ~~10~~ 22, wherein

said communication state detecting step has a distant station transmission power change detecting step which detects a change in transmission power in ~~[[a]]~~ the distant station and a reception power change detecting step which detects a change in the reception power ~~in a local station~~, wherein

said transmission power control step range changing step changes ~~calculates~~ the power step amount of the transmission power control step ~~range~~ depending on the detected change in the transmission power in the distant station and the detected change in reception power ~~in the local station~~.

Claim 13 (currently amended): The transmission power control method for radio communications apparatus according to claim ~~10~~ 22, wherein

said communication state detecting step has a control state detecting step which detects the control state of the apparatus ~~a local station~~, wherein

said transmission power control step range changing step ~~calculates~~ changes the power step amount of the transmission power control step ~~range~~ depending on the detected control state.

Claim 14 (currently amended): A transmission power control method for radio communications apparatus according to claim ~~10~~ 22, wherein

said communication state detecting step has a local station transmission power change detecting step which detects a change in transmission power in the apparatus ~~a local station~~ and a transmission power control bit change detecting step which detects a change in the transmission power control bit, wherein

said transmission power control step range changing step changes ~~calculates~~ the power step amount of the transmission power control step depending on the detected change in transmission power of the apparatus ~~in the local station~~ and the detected change in the transmission power control bit.

Claim 15 (original): The transmission power control method for radio communications apparatus according to claim 11 or 12, wherein

said reception power change detecting step has a reception power comparing step which compares a previous reception power with a current reception power, wherein

a change in reception power is detected based on the comparison results of the reception power comparing step.

Claim 16 (original): The transmission power control method for radio communications apparatus according to claim 11 or 12, wherein

said reception power change detecting step has a fading pitch detecting step which detects the fading pitch of reception power, wherein

a change in reception power is detected based on the detected fading pitch.

Claim 17 (original): The transmission power control method for radio communications apparatus according to claim 11 or 12, wherein

said reception power change detecting step has a reception power comparing step which compares a previous reception power with a current reception power and a fading pitch detecting step for detecting the fading pitch of reception power, wherein

a change in reception power is detected based on the comparison results of the reception power comparing step and the detected fading pitch.

Claim 18 (currently amended): A transmission power control method for radio communications apparatus according to claim 11 or 12, wherein

said reception power change detecting step has a reception power threshold comparing step for comparing ~~compares~~ the reception power with a predetermined threshold, wherein

a change in reception power is detected based on the comparison results of the reception power threshold comparing step.

Claim 19 (currently amended): A computer-readable recording medium for storing a program for use by a computer for executing the transmission power control method for the radio communications apparatus according to any one of claims 22 and ~~10~~ 11 through 14.

Claim 20 (canceled).

Claim 21 (new): A radio communications apparatus having a transmission power control feature for controlling the transmission power of said apparatus, said apparatus comprising:

a transmission power control bit change detector for extracting a transmission power control bit from a signal received from a distant station;

a communication state detector for detecting one or more of: a change in the reception power of the received signal obtained by comparing a previous reception power with a current reception power, a fading pitch of the reception

power of the received signal, the transmission power of the distant station and/or said apparatus, and a change in the transmission power control bit; and

a transmission power control step range changer for changing a variable power step amount of a transmission power control step based on both the transmission power control bit and one or more of: the change in the reception power of the received signal obtained by comparing the previous reception power with the current reception power, the fading pitch of the reception power of the received signal, the transmission power of the distant station, the transmission power of said apparatus, and the change in the transmission power control bit; wherein

said apparatus increases or decreases a transmission power of a transmitted signal to the distant station by the changed power step amount in response to the transmission power control bit received from the distant station.

Claim 22 (new): A transmission power control method for a radio communications apparatus for controlling a transmission power of the apparatus, said method comprising:

the apparatus having a transmission power control bit extraction step for extracting a transmission power control bit from a signal received from a distant station;

the apparatus having a communication state detecting step which detects one or more of: a change in the

reception power of the received signal obtained by comparing a previous reception power with a current reception power, a fading pitch of the reception power of the received signal, the transmission power of the distant station and/or said apparatus, and a change in the transmission power control bit;

the apparatus having a transmission power control step range changing step which changes a variable power step amount of a transmission power control step based on both the transmission power control bit and one or more of: the change in the reception power of the received signal obtained by comparing the previous reception power with the current reception power, the fading pitch of the reception power of the received signal, the transmission power of the distant station, the transmission power of said apparatus, and the change in the transmission power control bit; and

said apparatus increasing or decreasing a transmission power of a signal transmitted to the distant station by the changed power step amount.